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## CLAIMS

1) The use, as an insecticide, of a polypeptide comprising a sequence which satisfies the following general formula (I):

 $X_1CX_2CX_3CX_4CX_5CX_6CX_7$  (I)

in which C represents a cysteine residue, X<sub>1</sub> represents an amino acid or a sequence of 2 to 10 amino acids, X<sub>2</sub> represents an amino acid or a sequence of 2 to 5 amino acids, X<sub>3</sub> represents a sequence of 4 to 10 amino acids, X<sub>4</sub> represents a sequence of 3 to 10 amino acids, X<sub>5</sub> represents an amino acid or a sequence of 2 to 4 amino acids, X<sub>6</sub> represents a sequence of 7 to 15 amino acids, and X<sub>7</sub> represents an amino acid or a sequence of 2 to 10 amino acids.

- The use as claimed in claim 1, characterized in that  $X_1$  represents a dipeptide,  $X_2$  represents a tripeptide,  $X_3$  represents a heptapeptide,  $X_4$  represents a tetrapeptide,  $X_5$  represents an amino acid,  $X_6$  represents a nonapeptide, and  $X_7$  represents a pentapeptide.
- 3) The use as claimed in either of claims 1 and 2, characterized in that:
- $X_1$  satisfies the sequence  $y_1y_2$  in which  $y_1$  and  $y_2$  each represent an amino acid chosen from alanine, serine, glycine and threonine, or  $y_1$  represents an amino acid chosen from alanine, serine, glycine and threonine, and  $y_2$  represents glutamic acid or aspartic acid; and/or
- $X_2$  satisfies the sequence  $y_3y_4y_5$  in which  $y_3$  represents glutamine or asparagine, and  $y_4$  and  $y_5$  each represent an amino acid chosen from alanine, serine, glycine, threonine, valine, leucine, isoleucine and methionine; and/or
- $X_3$  satisfies the sequence  $y_6y_7y_8y_9y_{10}y_{11}Y_{12}$  in which  $y_6$  represents an amino acid chosen from alanine, serine, glycine and threonine,  $y_7$ ,  $y_{11}$  and  $y_{12}$  each represent proline,  $y_8$  represents an amino acid chosen from phenylalanine, tryptophan and tyrosine,  $y_9$  represents

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tyrosine; and/or

aspartic acid or glutamic acid, and  $y_{10}$  represents an amino acid chosen from valine, leucine, isoleucine and methionine; and/or

- $\chi_4$  satisfies the sequence  $y_{13}y_{14}y_{15}y_{16}$ , in which  $y_{13}$ ,  $y_{14}$ ,  $y_{15}$  and  $y_{16}$  each represent an amino acid chosen from alanine, serine, glycine and threonine, or  $y_{14}$  represents an amino acid chosen from alanine, serine, glycine and threonine,  $y_{13}$  and  $y_{15}$  each represent a basic amino acid, and  $y_{16}$  represents aspartic acid or glutamic acid; and/or
  - X<sub>5</sub> represents a basic amino acid; and/or
- $X_6$  satisfies the sequence  $y_{17}y_{18}y_{19}y_{20}y_{21}y_{22}y_{23}y_{24}y_{25}$ , in which  $y_{17}$ ,  $y_{19}$ ,  $y_{21}$  and  $y_{23}$  each represent an amino acid chosen from valine, leucine, isoleucine and methionine,
- 15 y<sub>18</sub> represents proline, y<sub>20</sub> and y<sub>24</sub> each represent an amino acid chosen from alanine, serine, glycine and threonine, y<sub>22</sub> represents an amino acid chosen from valine, leucine, isoleucine, methionine, phenylalanine, tryptophan and tyrosine, and y<sub>25</sub> represents an amino acid chosen from phenylalanine, tryptophan and
  - $X_7$  satisfies the sequence  $y_{26}y_{27}y_{28}y_{29}y_{30}$  in which  $y_{26}$  represents a basic amino acid or an amino acid chosen from valine, leucine isoleucine and methionine,  $y_{27}$  represents asparagine or glutamine or a basic amino acid,  $y_{28}$  represents proline, and  $y_{29}$  and  $y_{30}$  each represent an amino acid chosen from alanine, serine, glycine and threonine.
- 4) The use as claimed in any one of claims 30 1 to 3, characterized in that the polypeptide used as an insecticide has at least 60% identity with any one of the isoforms of a PA1b albumin.
  - 5) The use as claimed in claim 4, characterized in that said polypeptide is chosen from the group consisting of PA1b albumins and leginsulins.
    - 6) The use as claimed in any one of claims 1 to 5, characterized in that said polypeptide is used

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for protecting cereal seeds, or products derived from them, against insect pests.

- 7) The use as claimed in any one of claims 1 to 5, characterized in that said polypeptide is used for protecting plants against insects which are pests for cereal grains.
- The use as claimed in any one of claims 1 to 7, characterized in that said polypeptide is used at a concentration of 10  $\mu$ mol/kg to 100 mmol/kg.
- 10 9) The use as claimed in claim 8, characterized in that said polypeptide is used at a concentration of 50 µmol/kg to 10 mmol/kg.
- 10) The use as claimed in any one of claims
  1 to 9, characterized in that it comprises the
  15 treatment of the product to be protected with a
  preparation comprising said polypeptide.
  - 11) The use as claimed in any one of claims 1 to 10, characterized in that it comprises the production of a transgenic plant which is transformed with at least one gene encoding said polypeptide, and which expresses the latter in at least one of its tissues or organs.
- 12) The use as claimed in claim 11, characterized in that said transgenic plant is a 25 cereal.